

Title (en)  
HEAT EXCHANGE UNIT FOR A REFRIGERATION APPARATUS WITH A THERMAL STORAGE AND USING CO<sub>2</sub> AS REFRIGERANT

Title (de)  
WÄRMEAUSTAUSCHEINHEIT FÜR EIN KÜHLGERÄT MIT EINEM WÄRMESPEICHER UND VERWENDUNG VON CO<sub>2</sub> ALS KÄLTEMITTEL

Title (fr)  
UNITÉ D'ÉCHANGE DE CHALEUR POUR UN APPAREIL DE RÉFRIGÉRATION À STOCKAGE THERMIQUE ET UTILISANT DU CO<sub>2</sub> COMME RÉFRIGÉRANT

Publication  
**EP 3995758 A1 20220511 (EN)**

Application  
**EP 20205893 A 20201105**

Priority  
EP 20205893 A 20201105

Abstract (en)  
The present disclosure relates to a heat exchange unit 200 that is used for a refrigeration apparatus using CO<sub>2</sub> as refrigerant, including: at least one compressor 10, a heat-source-side heat exchanger 11 an expansion device 12, a heat exchange unit gas port 92 configured to communicate to a utilization-side heat exchanger 80A disposed outside the heat exchange unit 200, a first heat exchange unit fluid port 96 configured to communicate to the utilization-side heat exchanger 80A, a second heat exchange unit fluid port 32B communicating to the heat-source-side heat exchanger 11, and a third heat exchange unit fluid port 52B communicating to the expansion device 12, wherein the second heat exchange unit fluid port 32B and the third heat exchange unit fluid port 52 are configured to communicate to a thermal storage unit 100, a heat exchanger, particularly a plate heat exchanger, a capacity increasing unit, or a combi unit including a thermal storage unit and a capacity increasing unit, which is preferably disposed outside the heat exchange unit 200. Moreover, the disclosure relates to a refrigerant circuit 1 for a refrigeration apparatus with a thermal storage, which is using CO<sub>2</sub> as refrigerant. Additionally, the disclosure relates to a thermal storage unit 100 used for a refrigeration apparatus using CO<sub>2</sub> as refrigerant.

IPC 8 full level  
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Citation (applicant)  
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• EP 2844924 B1 20190403 - CARRIER CORP [US]

Citation (search report)  
• [XA] EP 3242096 A1 20171108 - DAIKIN IND LTD [JP]  
• [XA] EP 1607696 A2 20051221 - SANYO ELECTRIC CO [JP], et al  
• [XA] EP 2771627 A1 20140903 - LG ELECTRONICS INC [KR]

Cited by  
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